NDREW SMIT'4'S PATENT WIRE ROPE, FOR MINING RAILWAY, and SHIPPING PURPOSER. The Royal pushs TORLIA AND ALBERT, PERFECUENCE, FIRSTON, HERMER, and several coning in the Ricoral North, to major she blook-hoor's fervious, have been PUTTED WE ARREST WIRE ROPE, it is about had the size and of the size of the control to the control of the co

UROPEAN LIFE INSURANCE AND ANNUITY COMPANY.

Description of Jensey, 1913.

D BY SPECIAL ACT OF PARLIAMENT, 7 & 8 VICTORIA, CAP. 46.

OF ACE-NO. 16, CHATHAM-PLACE, BLACEFRIARS

OBN "SELIOT DRINK WATER SETHUNE, Req. 60, Chester square, Chairman. Thomas Henry Call, Sep., 1, Monde street, Grovenstein square, Chairman Flomes Rivett Carone, Req. 60, Devocables street, Partiand place. John Greathed Harris, Esq., 2, Out Poisson-pard. Honry H. Harrison. Esq., 1, Fryer, street, Beslims square. Thomas Hand, Esq., 14, Masshadar square. Hallow Pathed Servin, Esq., 20, Carlogue, place, Stoam-street, Alexander H. Mondesqual, Esq., 44, Partice-ond street. Alexander H. Mondesqual, Esq., 44, Partice-ond street. Montesquare, Esq., 10, James-street, Montesquare, Sep., 10, James-street, Montesquare, John Stowayt, Esq., 10, James-street, Backing ham gain. John Stowayt, Esq., 11, James-street, Red Dircham Grove J. Putcurderdt, Hants.

John Theyda Sep. 6, Poisy-place.

Phil Theyda Sep. 6, Poisy-place.

This same Samusana Securit has rectarly received Additional Powers. 1 will the three of every class of lossons. 8

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TOTICE IS HEREBY GIVEN, that the ACHILLES LIFE

REAT BRITAIN MUTUAL LIFE ASSURANCE.

14. WATERLOO PLACE, PALL MALL, LONDON.
THE CHISHOLM, Chairman.
WILLIAM MORLEY, Edg., Deviutor.
GREAT ADVANTAGES OFFERED T.; FOLICY HOLDERS BY THIS
INSTITUTION.
Large and immediate accomion of accompances by the brancher of the position of
-Albitre British and Provide Life Assessment Assessment of the PROPRITE DIVIGED Assessment accomes the MEMBERS, after

USTRALASIAN, COLONIAL AND GENERAL LIFE

MINERAL WEALTH OF NOVA SCOTIA-No. I.

and to which her people may apply their numerous branches of soles skill, and industry. The development, also, of the various p her colouies, is essential to the general welfare of the empire. The colonies stand around the mother country like so many pillars supporting the great edition. To cherish and strongthen these columies, according to their several conditions and capabilities—to bring their physical advantages into operaa-should be the aim of the Government, and every lover of his country. In this noble work the colonies themselves are most deeply interested, for they can only flourish in proportion to their value as agricultural districts, or for the valuable natural productions they are capable of supplying. It

tion—should be the aim of the Generoment, and every lever of his country. In this mobie work the colonies themselves are most deeply interested, for they can only floatish in proportion to their value as agricultural idistrict, or for the valuable natural productions they are capable of supplying. It appears relied that ages will pass away before any of their foreign possessions can compute with Gerat Britain in manufactured goods—therefore, it is the mare necessary that the natural productions of the columns should be supply to the process of the required and that the consign of the process of the process of the process of the nature and of required, and that the consign of the process of the process of the large than a consideration of the process of the continuous and of the process of the process of the large than a consideration of the continuous conjectual, and are no importedly known, as their minerals, and, up to the promoter time, seimen is chiefly inducted to more noticed on, or the unstand laboure of a few individuals, for all the knowledge acquired of the mineral would of British America. Among all the British permeasions abried there are not any whose mineral treasures will exceed those of Nova Scotia. The possession of that coincred to the Athentic Ocean gives to England on advantage both in previous renders it invaluable to the near nature, that night be quoted to contenue to threaty of the action of a similar nature, that night be quoted to convenee to threaty of the near vices in taken of the most valuable productions of the country, not seen doomed to be held under impositie monopolies, greatly to the injury of those they were colonied to benefit, and to the discoveragement of colonial enterprise. Brites were a vice in taken of the minerals of Nova Scotia, it is necessary to notice and its substitute, and the country, not as at it has been abounded to be held under impositie monopolies, greatly to the injury of those they were colonied to the discoveragement of colonial enterprise and the prod

Highmon the Duke of York. But their title was not allowed to extend the valuable enal mines of Picton and Cape Breton. They have, nevert loss, taken possession of those utilines, and thereby monopolised the or trade of the colony, while the minerals to which they have a right are worked by themselves, and permission for others to work them is obstinat refused. As the inhabitants cumout participate in any of the besselts of would arise from mining, no exploration has been made, and while neighbouring provinces are nodergoing geological survey, or have been mined in some degree in reference to their mineral treasures. Nowa Sec still remains with one-half of her industrial means belied up, and her represent such and the enterprise of her own people, and the or capital of other countries. An account of the uniovals of Nova Section follow the present communication—in the mean time, it is due to the in hitants of the province generally to state that there is an increasing interamong them on this subject, and they begin to look forward to that when the physical wealth of the dolony shall be opened to their industries and to general competition. m the Duke of York. But their title was not allow

EXPERIMENTS AND RESEARCHES AS TO MINING OPERA-TIONS IN FRANCE, BY THE GOVERNMENT ENGINEERS.

ed in 1839, respecting the or It remained to determine the nature of the gases which escape fro es fed with coke, to ascertain if the difference in the fuel empl effected any changes in the composition of the games produ beights of the apparatus. Late experiments, which took place at the blishments of Vienne and of Post L'Evêque, department of L'Inter bilishments of Vienne and of Post L. Eveque, department of L. Invery proprietor of which lead his sid in the most obliging manner in every rangement that would insure the success of the inquiry. The examinate of the gases of the high furnaces at these two factories confirmed the res of the corporation of the gases of the high furnaces with cake, and that of the composition of the gases of the high furnaces with cake, and that of high furnaces with charmon, present striking differences in certain parts the apparatus. The theoretic results deduced from the composition of tagses have been applied to the determination of the quantity of heat, or of the temperature which comit be obtained by their combination, and it is found that the heat of the combustion of the gases of the high furnaces we cake, at Vienne and Pont L. Eveque, represented more than 100 per cent, the heat produced by the fuel employed—a co-officient still much as considerable than that which had been found for the high furnaces we chartened. The analysis of the gases has proved the impossibility of or ploying them for producing high temperatures, and it has been acknowledge that their richness in combustible gases was ensably greater than that the gases of the high furnaces with charces a continuity greater than that the gases of the high furnaces with charces of incident in the same circles the apparatus. Pincilly, it was clear that the gases of the high furnaces we note this part of the high furnaces we note this part of the producing high temperature. Important consideration as to the operation of the different sorts of fact in the round and low for maces have arisen from analysing the gases from a cupicia at the foundry Viennes. The results of an analysis of the six carrier from a chimney a problem. The results of an analysis of the security of Pont L'Eveque, he led to considerations which contributed operation of underved at its sold. proprietor of which lent his sid in the most obliging manner to every Viscone. The recopits of an analysis of actions a probling over, and seether even at the factory of a probling over, and seether even at the factory of the considerations which tend to considerations which tend to modify the testions admitted to the manner in which combustions operates in the representatory. These results power really that the proportions of smallered at above one tenth of the quantity of air which pensityates by the gentlements of 1841 and 1842, as to the production of the manner, have been completed at Pont L. Evelque. Later trials have gener, have been completed at Pont L. Evelque. Later trials have for the purpose of obtaining combustible gases by colon, and to to locating a reverbrandory furnamen. This owen, which works, and to to locating a reverbrandory furnamen. This come, which works, as well by those of presents with the gases produced by colon. It now, therefore, appearance, as well by those experiments, and as by those of presents we can evel consider they may be, even the most overlay, by transit into complexation of the arise is of the complex prices of several produces a state of the presents of the several produces a state of the presents of the presents of the produces of the presents of the p of whatever notice they may be, even the most earthy, by transi-into constitutible game in the generators, made of suitable dim-that those game are somerpithic of being applied with seach a works of metallargy. The least orres which have been produced Privan, in the department of L-Ardente, and which encaptes the legical level as the important below of Le Vuelte, have been as a a metallicityical view. It has been conducted that these come, we as actuals as 60 per cont. of from, do not yield in richness to Vuelte, and that they have an advantage over the laster by bein encourse, and so can be framed with the addition of only a small contine, while the over of Le Vuelte require a very great proper looks of Privan, though how extensive than those of Le Vuelte important resources, their medium extent being 1 for as. In the De Nord the experiments undertaken as to the resistance of

which has been mod at Lings, has been entered to come expert-in the coal mines in the departments for Loire and Du Gard. In partment Du Nord, from the too great facility with which the an one open the safety lamps, well-itherending their being furtaned and, line often lamp the curve of orrious architects. To recently this come in the many same that cares of services architects. To remody this code is then, the congiusary alteretions to be made in the fastenings of the cond, see of Acrin the necessary effections to be made in the fastenings of the age, which have been adopted, or that it will now be nearly more difficult that minors to open the large with which they are introduced.—Trans. of from the Monitone Industrial. lated from the Mo

In further illustration of this exhibit, we may append a letter from M. broad, stall engineer, sine published in the Mondow, as follows — In he process of which you speak, and which I have practically applied on account of the Mining Company of Viceigns, the front of the cinder-bex hermatically accided, it is true, but with the exception of the orthon of a is inconsistedly seeded, it is true, but with the exception of the orthon of a zerogial ious table, about trenty continuates in disameter, and one nester in length, opening under the grating, and which the jet of clean prevades, following its usis, and deserting with it by exclient a strong current of sir. This jet of singue, therefore, opening to lessel, as my opinion) is a Parely mechanical moment. To spenk more plainty, it serves the office of a simple emblants, which object could not be obtained by any other method to work are momentuminally or concentratly, and the action of which is indispensable for supplying the mant of conductability in the protest coal of Vicingue."

ORIGINAL GGRRESPONDENCE.

DESCRIPTION OF THE MINERAL DISTRICT OF SOUTH WALES ADVANTAGES OF THE PROPOSED SAILWAY.

-Although this great undertaking has from for some moretha to the public, by the prospectus lossed from the provisional committee, I am of opinion that its marite and prospects have never yet been made suffishortly prominent or generally understood. The elletment of charse has new here made, and I think I may congretalate those who can number meetres amongst the successful applicants; yet, as a considerable poron of them may be residents at a distance from Wales, and little maps

them of them may be essidents at a distance from Wales, and little ampainted.

With the found porulisation, if you will allow me to make your Journal the established for conveying some of the grounds upon which I offer this congratulation, and forms a very high nationals of the socientality, I shall be happy to wrait aspectly of the appear which I offer this congratulation, and forms a very high nationals of the socientality. I shall be happy to wrait aspectly file the appear of the socientality of the speed of the socientality. I will assembly to refer to its straithination; and forms of society of the speed of the society of t

other, such agent these, and within the first type are then formed, are the district tensescene of this basis, and the great missesfunction of this spin predestricts of thinks Wales.

The control and disequent part of the basis appears to be in the stateity of soft, in which melylaterackness the change from the bit minimum conditions and least, as which mely better architecture or other conditions and another architecture and said ments of minimum the best of the minimum of a ments and properties to control or other conditions.

It is a substitution to communicate the better controlling through Live graduates, and the origin the ments of free breakenships.

Penting their given are residue of the eventh the severh of Praches-Subters. Making their givens are residues of the eventhenium of the district, it is of apprehense in experience of the district, at is of apprehense in experience of the district and read which her home seturated by Mr. herself he that takes calculated to ambient the refractanguese trulks which each consumption of the experience of general arrangement; and it has no the beginning any convention, that couses sent ; and if such as alternoid as admirably adopted to account this object income to which have been asternoid as admirably adopted to account this object income of which are three to find a sent of extense of the content.

The successful terminate, at Succelement, is not only in the immediate visiting of the account observating districts and Citimaterialistic, but also also of several the account. For the content, at the account of the content, is the content of the content, in the form of the account, the content of the content, and also of the content, are aboutly simple time content of the content, are aboutly simple time of the content, are aboutly simple time content of the Process of Desc.

is continuing them, and approximate towards Chrysteries, so shall again communicate with one optionation and promisections between of board on the role redirection, which is alternate sensions which the still on pass Carolist, and third on the third to the still of the distribution of the still of the distribution of the still of the distribution of the still of the borable parties of the bitmerteres and first to N to hanged ad this second A boson stituted protein that often accounts to temperature with he has all at an filter against contract decaying and transfer against the forest transfer against the forest transfer against the forest transfer against the contract decaying the section of the protein against the section. One has section for a period to the contract decaying the section of the first transfer against the section of the transfer against the section of the decaying the section of the decaying the section of the decaying against the section of the decay of the section of the decay of the section named inc. busins be reference on the most plant

manife than of read with press cond

done into its most eligible example toring markets, the line and bitumine and from the mineral in the agricultural districts, and the anticacit mainteness and others, or estime, who may require its use; and, by the of read to be adopted, each of these will be supplied from the most of lignous markets, either cast or west of them, as the case may exist. The above statement of the internal wants of the country and see of copply, and of the ments of meeting both, which notore assisted—rather, colled—into operation by the art of man, has furnished, are six evidences that Mr. Brunel has not only had regard to these pseuliar of most appearance, but has sometherable traffic over a few out of the and that a very material improvement in the condition. compagance, but line seen that a considerable traffic mest arise out of them; and that a very material imprevement in the condition, means of subsistence, and internal consists and prosperity of our population, will be
effected by such changes. The distances from markets for cuttle, curns,
butter, possitry, &c., and for cool, lime, pit wood, &c., will no longer be
measured by mountains and allow, but by expedition in their transit, and
monomory in its cost. With each advantages, and the railed which the
Weish tenantry will derive from increased prices, and reduced poor's rates,
I hope the day is not distant, when they will rise to an equality with those
of England, and outer into fair competition with them, in the imprevement of their land, and a better and more professible system of calitration. ment of their land, and a better and more profitable system of cultivation.

of England, and enter into fair competition with them, in the impuresment of their land, and a better and more professile system of califration.

The following is smoother light in which I have viewed the undertaking,
and by which I think I am jorified in assuming that the railway will not
only be applicable to the counties of Monacouth, Glamorgan, Carmarthen,
and Fumbroke, but also to the two adjutaing counties of Become and Cardigan. In these six counties, I find an arountie serface of 2,752,640 acres
(Table A), and on comparing these with the counties of Someward, Wiles,
liseths, and Bunks, therough which the Great Western Bailway passes, I
find a convergenceibing serface of 2,881,280 acres (Table A), or only 28,640
acres of lead more than the conjunction of the South Wales counties. I
size Sud-by reference to the same Table, that the surface land cental of
the six Wales counties (Monacouth included as one, for the present purposes) is 1,232,732d, per annew, or an average of only 9s. 5d. per acre
—whiled the land cental of the four show-named English counties is
3,284,132d, per samoum, or an average of 22s. 9d, per acre.
I do not
mean to contend that the South Wales counties are not very materially
afflued in this great difference by their mountainous character, and their
elimente; but, as it will be seen that the averable reads of each, as we present value of the land in the more western counties, and by bringing them
so much nearer to the London and other English markets, will reise them
to a more convencioning equality in value. By the same Table I observe
that the population of the four English counties, and by bringing them
so much nearer to the London and other English markets, will reise them
to a more convencion of the four English convelies was I,011,045, calibit. see much nearer to the London and other English markets, will exise them to a more encreapending equality in value. By the name Table I observe that the perpulation returns for 1841 for the Welah counciles amounted to 624,2852, and that their average increase in the previous ten years was II percease. The population of the four English counties was I,911,845, rabibiting an average increase in the rance period of only 74 per cent.—whereas it is an interest that the propulation of the four English counties a set-ancing with thrive thorough day of those which are new travered by the Great Western Railway. On the question of relative population, however, I have gone left a series minute dated, by which I find, in rejulify conditiong syrid to that of the covers periodes lackaded in the recent Fallamontary notice of the South Wales Railway, and into archive propulation, the recent fallamentary notice of the South Wales Railway, and into a total of 271,849; or, exclusive of part of the sounds of the county of Giosperster, 277,210—heing nearly two fifths of the whole gogelation of the Welsh conscious. It must be brone in mind that went of there periodes are also removeded by crieting railways, or other weader of those particles are also removeded by crieting railways, or other weader of those particles fast is a encolosive organism in favour of Mr. Brened's counting line, and formishes an ample raply to those parties who would have had him destints from his purpose in reaching Cormachem by a restee through the interior; for the impression in reaching Cormachem by a restee through the interiors of the also and property in the number of inhabitants invaled in the accord particles in or through which the Creat Western Railway periodic or population by any other line through South Wales, must be evident to every unbiasement which had been interested by and seath of an interior or inchabitants invalued to hear through subscious of the seathers and the control in the accordination of possenger traffic, I am perposed to more

traffic which any can office.

An objection was originally lakes to the probability of any coasting line heing also to compute with one heros means of one-exponent for either parameters or growin. It is not suspening that such objection through originate with those consequented with those consisted with those consisted with those consisted with those consisted with the colorer positions of one valleys and poets, such, therefore, hy one constitutions as inquiry, form for the linking throughpotion, in one constitutions as important, and constitutions as a state, and the present consistentians at the property of the linking through point I such particularly discontinuity all the resemble attention to a letter, accompanied by some statistical details, communicated through the Editor of the (B), which show attended it ... I wish it to be formed in maked that as the pages was neared; proposed the my new arm, for the propose of embracing a general state of the company, each source aspectably of the probability traffic and proposed if the company, distinct traffic and proposed in the company, distinct the Principles are superioral series with the general state of the account trade in the Principles contribute superioral series in the account trade in the Principles contribute aspects to any minimis formations, and are superioral series and the account in the principles, from which any own distinct the series are supported as the principles are supported as the account of the surface of the surface and as the surface and the surfa derivating contents, he the assessment of the products of expert and those, less, in The of the first law winds are determined as the management of the first special contents to which the second distinctions are though good to the contents of the company of the contents of the first special contents of the contents of the

sider of a stock in London at the tiless I son the helder of a stock in London at the time, preducing me no return, and subject to a constant animal superate for warehouse rent)—making a total charge on the trunnit of \$L\$. Its. 6d. per ton. Even in this case I am assuming that I have a vessed in Port Taihot of the convenient bands for my fifty town of coppur, and willing to charter for the port of London. By means of the railway I could begin to load at three or clock in the ofteneous, with the certainty that my diffy tone of coppur will be delivered at my customer's warehouse, or to his vessed in the stream, early the following meeting, and that I should receive my bills of lading easily the next following meeting, at a cost of 22s. 9d. per ton. But I will assume that I have no vessel at Port Taihot bound for London, or, if no, one of 100 or 150 tone burden; I have no other merchandine for the same port, and, consequently, connot engage one as large; my athesham would, naturally, under such circomatanees, be directed to the ports of Porth Carl and Cardiff, eastward; or of Noath, Swaness, and Llandly, westward; other to engage a vessel of suitable via to come into Port Taibot to ballant, or to assertain if any vessel might be in either of their ports loading for Landon i and, if so, I must load a fifty ton vessel for Tallost in ballost, or to assertain if any vessel might be in either of them ports leading for Landon; and, if so, I must lead a fifty ton vessel free the port in which she lim, in order to avail myself of her destination; in either case subjecting myself to an additional charge of 3. 6d. per ton; and in the event of the long prevalence of either strong easterly or exactly winds, as the case may be, it might be totally out of my power to effort any sea-horn communication with her for averal works, so that I might altogether loss the opportunity of delivering my goods, and of realising upon them—disadvantages to which I would never be subjected, whilst I could allow such wasel to remain in her borth, and at the same or a lawer cost, avail to yest of the railway transit for them, without exposure to the dulys or risks of the channel.

could allow such vensel to remain in her berth, and at the same or a lawre cost, avail myself of the railway transit for them, without exposure to the delays or risks of the shamed."

An also pectry generally known, that the foreign capper over consumed at Rincilly. Noath, and Com Avon, are imported into, and purchased at fewances, whence they have to be conveyed to the respective coppur-works situate at the above places in weason, at a higher rate of freight than the cost would be of conveyance to them by railway. Again, the tin-plate manufacturers have selected their rites manur with regard to water purer, means of access to charcend or to bitmelineas coal, and a conveyance to them by railway. Again, the tin-plate manufacturers have selected their rites manur with regard to water purer, means of access to charcend or to be bitmelineas coal, and a conveyance of the selected price of the selected from a solution of one or the other of these being more than 50,000 tons ansamption of one or the other of these being more than 50,000 tons ansamption of one or the other of these being more than 50,000 tons ansamption of one or the other of these being more than 50,000 tons ansamption of one or the other of these being more than 50,000 tons ansamption in which means a selection of the selection of the selection of the negative provises pig-iron for another to re-mail into castings, or for a second to religion, as in with means and interest of the selection of the nearboard tree, to be wrought out by others into the article intended for the nearboard tree, to be wrought out by others into the article intended for the nearboard tree, to be wrought out by others into the article intended for the nearboard for these by the constitute which may have had its origin in the frailities afforded for these by the constitute of the wrought of the particle of the selected for the nearboard tree of the selected of the selected for the nearboard tree of the selected of

influenced bim in arriving at this amound, as well on whose approximities for coming to a correct constraint are altogether monganized; but it may not have contened into the indedictic suppositions of those who differ from him, that the amounts surface value of the land to be taken is less than half of their which was required by the Genat Western Railway Company—and, consequently, it may be presumed, that the psychiate money fire the same will be effor a similar proposition (Table A)—that, at least, a discar among will be effect a similar proposition (Table A)—that, at least, a discar abiquing parts, and these nearly equi-distant, will impact the required timber for the read, and reader the land carriage of small amount, when represented with that of passing it many miles into the interior of the country (Table D)—that the easy access to those iron works which may contract for the rails will be them on the read at a triffing chappe—that nearly sixty miles of the road being almost level, a material saving will be made in its formation—and that ments of the higher land will yield a marketable article in linearine, for, from the cuttings. erticle in limestone, &c., from the cuttings.

to its forestmen, Att., from the cuttings.

I subjoin at fine the provisional committee's relimits of traffic and returns (Table E), and I believe that some of the items are, of incidently, undertained to precise the terms of marks of the country is each as almost to precisely the general see of stage, conclus, and other public means of convergence, as the horse latent requires to semewhealth he had be grounded by allowed to be because of stage which the forest grounds by allowed to be because the horse grounds by allowed to be because the because the had according to the see which their according to the first because to be included to by calle the horse or the see which their according and of traffic by these is fitteded by those actually now in see, it is quite reasonable to mise, that by means of the Stock Weiler Railway this estimate with the oney means some than doubled. I potentice, also, that they replace upon two divides of the existing passenger traffic by expenses from Season. Tooby, Curronartication, and Harvedholmout. I have no doubt that the terminal traffic and that the about of the traffic that the means to be necessarily their replaces. To have no doubt that the remaining one third would defray their replaces, but it is much too law, come accounting that the remaining one third would defray their replaces. The season through the basis of this province of the stagewar towards will puse against the referry. Taking their centimeters as they stand, I think they are at all, and that the whole of this portion of the stepone tradic will pass agon the railway. Eaking their estimates as they stand, I think they are fully posted to that exponenties of carbillang at least 10 per coat, for their absorbothers. I have bitherto chiefly confined my abservations in their absentionities. I have believes chiefly confined my elementations to convenience of a local character, but the national impositions of floath Maine to Green Britain as a manufacturing district, and as a designed of construction with Decision, will require a few remarks. It is the fact, that there files of the copper, from 6the of the na-place, and constrained of the iron, communical in the known world, or is graduated or prepared for one or the Moneral Bosin of Statis Maine—client the copper works affected coupling most (productive of culture and almost) to make the copper works affected requirement (productive of culture and almost) to make the copper to the 1000, end the ones works imminates of culture and minary to spore than 1000, end the couples works (minimates of culture and minary, to spore than 1000, and also support their function, on that 110, total industration of Statis and other total policies of them.—that the opposite of policies are the 100 total total of them.—the file of the local policies are make 110, and also support of main the file place of the 100 total policies are the 110 total policies, the time of the policy of the 100 total policies are the 110 total policies, the time of the policy of the policies are the 110 total policies, the time of the policy of the policies are the 110 total policies, the time of the policy of the policies are the 110 total policies are the 110 total policies are the 110 total policies and the policies are the policies are the policies and the policies are the policies are the policies are the policies and the policies are the policies are the policies are the policies and the policies are the policies and the policies are the policies and the policies are the policies are the policies are the policies and the policies are the policies are the policies are the policies and the policies are the policies and the policies are the policies are the policies and the policies are the policies It to see of resul, the tile the early female of the couply works 1,500 the easy the expense of each excessed 1,500,000 tests of the expense of each excessed 2,500,000 tests of the expenses of each excessed 2,500,000 tests of the expenses of each excess of the expenses of each excess of the excess of the expenses of each excess of the expenses of each expenses of each excess of the expenses of each expenses of each excess of the expenses of each expenses of each excess of the expenses of each excess of the expenses of each expenses of each excess of the expenses of each expenses of each excess of the expenses of each expenses of each excess of the expenses of each expenses of each excess of the expenses of each excess of the expenses of each expenses of each excess of the expenses of each expenses of each excess of the expenses of each expenses of each excess of the expenses of each expenses of each excess of the expenses of each excess of the expenses of each expenses of each excess of the expenses of each expenses of each excess of expenses of expenses of each expenses of each expenses of each excess of expenses of each expenses of each expenses of excess of each expenses of exp

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Counties. Population.	Connties. Population.	Counties. Population.
Bestford 107,006	Hants	Oxford 161,6nd
Berks 161,147	Hereford 113,678	Rutland 21,300
Bucks 155,963	Hertford 137,307	Someract 435,992
Cambridge 164,459	Huntingdon 58,549	Suffak 318,073
Cornwall 541.279	Kent 346,337	Surrey 580.676
Devon 533,400	Leierster 215,067	Sussex 200.255
Dorset 175,043	Middleson 1,576,636	Warwick 401,716
Essex 344,979	Norfolk 412,664	Wills 258,735
Gionovster 431,363	Northampton 190, 228	Worcester 235,336

The line of communication themse to the hanks of the thick would not only it effectually proclude the is one coasts. The advanta outhers and wastern ports to in a mercantile as well a	Phases, a national present our ever he attempts of any enou- ges supplied by such a of freiand would pro- a national view, as it	a, ing of riots in sy to make a de a communication see of the utmost it would effect a	South We tion of the BOUTS Counties. Gloucester	WAL	Portoles, &c., cheep, in or finds on or films. Ell BAILWAY Popul. S1,	lattica.	Asiah the Good Bome	Great I	WESTER	Rolling EN RAI	LWAY.	the vague hope that one blow in a dearn may tell, indifferent if the re- massle to receil upon the three letters, behind which he acroms his m- First, as respecte his chamefully garkied quotations from my pumpl beg to call the attention of the public to that comp, and, after a few wo
aving in time, either for these, the Cape, the East and r foreign peasessions, taken this general, as well Wales Railway Company, it has been selected with the develope our astive rich	e transport of goods or West Indies, Gibrali as local, view of the I can arrive at no of he constant window.	r troops destine har, or any of ge line proposed b ther conclusion as being the be-	Glamorgian Carmarthea Pembroke	****	92. 371,	974 512 593 949	Bork			******	94,050 37,157 4,997 124,493	vey the truth to their minds, or directly to onecan it from them. writer says—"Perhaps, Mr. S. has improved his system of late; which, as the context shows, he means, since I wrote my pamphies.
markets for our agriculture nd passengers with each of Fales, as well as those of I find in congratulating those hly-promising undertaking pality) upon the prospects	al preduce, to promote thee, and with the ma England and Irviand a who may have been a (more assecially the	e the interchang anofacturing dis l-and that I as one shareholder to inhabitants of	Population Counties.	Popular Li	singham on the sintiest. Con 62,696 Hant 61,147 Here! 55,963 Hert!	West witten. a ford . ford .	ected by	nick on ation. 5,004 3,678 7,907	Chan Oxford Rutlan Somers	tios. I	. 161,61 . 21,36 . 433,94 . 318,07	no right to make me thus appear as falsifying his statements." After woold the public be prepared to find this method of storing up ps through the mediam of propulsion receivers or power storers, very fully explained in the pamphlet? The subject in examined and devel with much care, from page 50 to page 41. Eleven pages principall only on one subject, may appear a great deal of reacting to "J. B.
or 2. (A Acception Landed numbers. PRIL 123.157 143.530 143.530 143.530 163.53	Bate per Popu acre. of 11s.4d	766 6 m	Deves Deves Derest	5	41,279 Kent 33,460 Leter 75,043 Middl	eler. icecs	84 8,57 41	6,337 5,657 6,636 2,661 0,228	Survey Sussex Warwin Wills . Worces			open print is too much, in which fally to describe the whole operant a new and important arrangement in the practical arts; and let them the space frequently occupied in works on science, in describin pair, perhaps not more important than one of the valves of this sy
. 1,092,000 1,361,547	Av. 9 8 624,	2002 Av.21 2003 7	Paovinces King's Co Weaterd, Paovince	or L naty, Wick! or Co	h Provinces ind Buy on the E- sinsten—Co Longitord, Le on- NNAUGHY—Co	ond die matie rath, Count	Galmay a of Cur Meath,	Buy or Our Duren	n the Western K. 'a Coun Papa	idare, lig, We lation	Kilkensy at Meath 1,967,00	tion was wearied when he read it in order to try to pick holes in it; oan I feel more doubt that in making the remarks, which incomber, the letter upon it, his object is, if possible, fo precent of for Prom reading the would exactly answer his purpose. But as respects the real char of that bittle publication, if any respectable member of the public will
477,520 477,520 477,520 545,157 545,157 5,851,280 £3,284,152	Av.22 9 1,011,1	963 6 ,, 945 AV.7\$,, ((Ar Weights and)	D.)	- Apres	Total population of the state o	niation	ond M	ineral (Ores imp	parted i	1,665,691 n South	both for the style and contents of that every; and who has been please express himself in its favour in a manner it would ill become me in a At the same time. I am very willing to admit, that when "J. B. P., one of his class, have poisoned the honourable, but too-confiding, a of any resolves with their diagraceful whispers about "vertical collisions, but to be to the best content of the plant of the same transfer with their diagraceful whispers about "vertical collisions and the blant of the same areas and the same and
Engether with the relative d f each District, and giriding y Company's foll will be 14d or beliest, to said from the Mineral. Mineral	y thereby the facility of b. per ten per mile, and some Purts respectively	f such communical d that he, fid., per y, or either of th Total. Tutal	alian daily, of t	med a	a charges under	P.36.6	id. per 6	ter Cha	the assur	mprion !	that the	ideas previously infected into their minds. Till all is explained to the and the truth expected from the falsehood, they neight even suppose as thing was kept back.— In the same manner this writer in now conductor in minds the public, by confusing together the proposition receives the minds of the proposition of the confusion of the proposition of the p
Do plates	Tons. # 90000	Trees. 4 670 30000	Linnelly	97	Milford	33	Miles.	C. STOLENSON	- Distances		137	anderstands as he dues that of the former, being explained at page and 45. These two apparatus are also I believe sufficiently explained the references to the plate, in which, by the way, they occupy very ferent positions. As, however, I use one in each series of the propul receives a manualy that which is placed immediately believe the engineers.
Copper		26211 169270	Swaners Neath Port Taibet Swaners Neath Port Taibet	36 39 11 17 99	Kidwelly		100	204	100	161	191	and while the series is charging (as mentioned in the pemphist at page the appartunity for creating confusion appears to have been too tony for a writer, that the one I have to answer. But it happens, as will op-
Copper Beitich e Foreign	11 050 205400 11 050 205400 2000 11 22 20		Neath Neath Port Ended	8.8	Lianelly	41	*	iga	1847	150	110	in convey in the rast, the water in that alow, but continued flow, which the "charging "is effected, as as not to be in its passage, influed by the intermettant action of the engine; while the other smaller versare evidently to break the measurable of the powerful propulsion-over gradually, when it is accountry to stop it, ofter the train has passed to the contract of the contract of the form of the passed of the contract of the form of the passed of the contract of the form of the contract of the form of the contract of the form of the contract of the contract of the form of the contract of the form of the contract of the contrac
Copper Heitigh Copper Purign	686 20000 13653 21724 8331 813940 11000 60040		Port Talket Portion wi		Swannen Liansily	6 17	-	107	541	164	104	mark, in passing, that in these latter, proper "sir vessels " a consider moreomelation of power will take place, which probably night be oppin some part of the system. I now request the public, to observe that in his latter of 2d : "J. B. P.," in a protected description of the hydraulic system, each" Imagine, further, that at every seventy yards, or more, vertical pi 198 feet high, and one fout in diameter, branch from it (the horizon
Tin plates Hettiske Forsige.	200 10470 4575 N59436 Depute 1 princes	4000m GGp436	orthogel	360	Neath	A E1 20	79	100	End	130	60	pripes." This etainment, in my answer, I showed to be a pion " longition." In his letter now before me, this letter-growthine writer, with on self-graduation evidence as a statement, taking cone however to part the my " or more " in station. Thus, if a vertical pipe should be found counter with the system anymines on a railway, within those acides, thirty, on I make it is more the service, and no appears to counter the same this system.
Fin phales	4360 1.000000 1.30000 p+10000 14		(emporet	11 90	Finance Liancity	915 205 205 205 201 205	62	1.84	2005	106	69	but not the spirit of the fact—and the letter any offen convey a grounly for approximation to the mind—in satisfied with historial, and conducted to specken because for it. But I ask the public whether this is upright Associative's for a superight Associative for it is not whether any man, with a name, dare do this thing? Now, as regards these vertical pipes—an expression, which, an plained, will quite midend bis readers—in the pumphint, at page (I), following occurs over It will be preciseed that in the latter pages of the contraction of the pages of the states of the pages of the contraction of the contractio
The plades	C70 Branca		begains	15 96	Porthogeni Port Tailed Nogth Cardiff. Porthogeni Port Tailed.	040 84 86 8 11 21 43	25	159	(40)	N.	14	little work. I have viewed the driving power for the system many as the stemm-region was the only amore from which I made derive a function. This I have done for two renegate (first, it has been object against hydrosole proposition, that verticall based of water of the require sittends will saidone be svalighte. As required many lines—or a considerable portion of them—I admit this objection in its full force; and as garde others, I admit it with two qualifortions, "As. Even in my late
The plantes	1622 Totale 3				Chapters	1-6 27 1-0 141 17	29	195	127	20.	**	gards others, I admit is with two qualifications," has. Even in my lag- ductory retuncing, this branch of the subject-marker is relieved to, for page 16, to order to prevent animirational colorosalemetics, I state-of- is true I shall occasionally apply the etents-ongine forcing pump as a first oscillow for converging propulates power to the solor. That is, who extremel breefs of water of pulletions structure, or smaller figlic to rook is double machinery, are seen, by the old of poping, within compensions reasi-
of Brancowskin to the promise of the section of the sec	nters of this presentation professing mode of the co	aparated traffic,	han been caredo oppness action when the entire to entireleged, t	end on en line half th	n. A. Moorder make mo on off conclusion in	MAN PO	mand film regimented and will !	in the	ners and nessible decading	Manager Land	angents,	Three questions, and many other parts, in the contest of the passyble make it clear enough that I could tally small organic of pipts in order covery sufficient fails of mater covariously; and when these fails do once
do Bristal Grap-third ditte distal dista	of existing		agreement of a sectory to and	of pay -J. J. ay la	per of Seconds	ng (20 District of Min	ich alt.) alt., bed mag: Jo	a lotte ng name normal, t	r ajiyes iyafuri to widi	night at de it pa	hu (be rports	beinging the water from a certical elevation of 198 field, would be require would be comprised between any two of those, a distance of Fien and and there explicitly? What will be paidle that all he dead amorticating on the quilble he is specifically attempting to be on the world CR MCRIL. What again will be their amorticating on the quilble he is specifically attempting to be on the world CR MCRIL.
of 6000 kraffs	a chief of pop		by medium propagate or by according interest. However union recognitioning writtens, a whore many historic communication according to a contragational properties of contragations to their ment of properties to their ment of properties to their mental contragations of the contragation o								this representation on them, and by such means, to chick the program on investion which may bettern of national unity? Can the public to lines that any mean would take all this tousine, and risk appearing binaries the accordance concern. The was not impedied forward by some open object, and whose tousing add binary were not necessarily some area powering interest? Can the public letters is otherwise? I see our the	
o palway tolerator of only 6 to will assessed to. the planter, seemble time 6 to me, where, seem, and temps are fire shadh.	too the state rains, the piece of the state	600,000	megermergeland Smir Entercome and Winferson, a dissellent melody b where primered in	ore, v	erikipad inen o arroby anight d drastring all so meranosa, with metanosa wita	per lictures d life and or re the	terter terter medi er ell di me me	No. of		de ancie horstel e ne locid ne Visco noise, cie		would not colving one to compay with the requisit of this "J. B. P." and finights bine with the address of one of the requisitely garden who assess this a bigs epicies of the hydraculo colving. An embryomens welfar a thir observator is, and much be, a entraporter, and that he would be a the homest extraporter, but better has above, and perhaps a constitution finigenees one too. I will not observe my detugate our conditions in the homest contracting the colors of the contraction over the contraction and appropriate to the
Enter graph took		17.348 19,548 10,548	place themes bed camen, o province. B and o committee of ministra pro- cine; "2, 2,	d an at it is actly f	withto the many that the many that the many to compare the compare that the compare that the compare t	- J.	paint of strey, at B. P. T.	Ministra Min	y, and and upo manage or males (for eacher me, for a resistant for each		Reving than benegled the costs marker to know between around and as manuface to specify the benefits to see the superior to provide a possible to the second and original the benefits that of continues any of the vertex's notice, brackers, and agreemy factor markets on the hydroxide content. This person desirable the as again to a few parts of the hydroxide content of the hydroxide content. This person desirable the as again to a second of the sec
matter a set profit of pits of 15 per mett, on the p projection of the passance man the framp offer your		#66,100	Revited con-		of to the public pent. I got s	6) 60 72	fler spo films i		lei Belli reiler e	on PUI	BLIC CAR-	tion to every. He finds could not be the purey-back his integrity remains an imposed the later the public to expect on artists offered into expectate written for our trained forward unledges that advantage of freely, all the world will consist to story of the temperature, or freely him with real analysis anglest; for lat has given up the only price that can be becausely additional.

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and street this splid had a

The public, after taking all the cits consideration, will be enabled to facther I was justified in eaching one two passing allowines to the of photic system; and if "J, B. F." had come forward only to disco at reward the truth, leaded of with the object of lowering my leven public estimation by any ments, he would have seen that when reper course was indicated, his first business was to prove that is ob-as, in power, and effectiveness, the hydrendic mass range much below anonphasic railway. This we has declined to do. That system is

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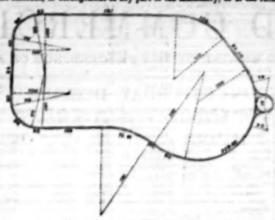
in public estimation by any manch, he would history in the public estimation by any manch, he would history was the process of the proper course was indicated, bit first business was to proce that in changhases, it purez, and efficiented, bit first business was to proce that in changhases, it purez, and efficiented, bit effects destinated by the public of the process of the proc

NEW STOTEM OF RAILWAY AND CARRIAGES.

Major Parity's determination to keep his place secret, until se-gainst danger, by patent or otherwise, is perfectly consenable; I sylics, in this paper, limit my charrentions to Mr. Arnous's eyerelative to which Major Purity has made arroral remarks that dominal me, relative to which Major Portry he means over-the information as to what (amphilism is, my object being, to concretain whether it is anything like it, or insulate, both of which, cades have pressure, even become hard, and less that elections on partial for the purpose he wretimes.

Having here present at enerty the whole of the relivent experiments after with My, Arment's moringes, and kering superintended the whole of

Physicage beam presented at conservy than wheeler of the resilienced experimentals also with Mr. Accessed to conserve manches, your will purchase attire man, theretigh a produce of your department, to may a five access on this system, which is an advantage of your department, to may a five access on this system, which is the known have, and may generally quadratured by the counted elementary. In the first planes, and may generally quadratured by the counted elementary. In the first planes, and may generally quadratured by the counted elementary and the first planes. I can assure Major Purify, that he was estimated event by first, by advantage and of the appareimentar. That provide twee should be been at the first part of the grain and the projection of the grain where the part of the same of an estimate that appareimental is a constant of an estimate that the projections that may exist in appropriate and estimate it may be not excluded that it will aventually make uses. By commercing the projections that may exist in appropriate and another, haveness difficult of may be to enclosing the whole of our superior of the assurance and exists and another than a surface of the constitution of the project of the assurance and exists and another than a surface the access and exists another part of the assurance access and exists another part of the assurance access and exists the accessing the assurance access and exists the accessing of the assurance access and exists the accessing the accessing the accessing the foresting the accessing of the accessing of the accessing the access



which were very slight, only weighing M lies per yard. The dynamometer heing applied, it was assertained repersely. Last like resistance of the fruits was not prouder in the terrors selly. Last like resistance of the fruits was made on this control were made. It had we travelled altogether should fill miles, varying the experiently but the minut trying manner for the system. The codine rods could little the best to the axis were made of half-inche cound icon, and every position was made comparatively slight, for the axis of extra patients on the Nightest accident occurred; and I do not herefate to say, that carriages upon this principle may be made quite as swears a say retirous courings of the occiousty description. There is no streke upon the axis beyond what is due to the weight and motion of the carriage; at that to should entirely by this system; and survers of each radiis may be adopted as would be quite impracticable with parallel axis of any hind. When it is considered how materially the condition must tend to dissiliant varieties difficulties. It wast be admirted, that the obvious of this eyetem would very much diminish the cost of railway coaking, at the same time that it would enable an enqineer to go over outh ground as in the present outlinery system is would be quite impresent the interest for the hoing more elevated in Mr. Arnous's system than in any other—the position of the radius rode just above, or, if requirite, heles, they the the displaced to carriage appearably, and as described shows.

I cannot conscious without otherwing, that fixed parallel axis in railway coarings involves a principle quite as defective as if applied to carriage on common roads; and I feel seavimened, that assence on later, some type tem of movembe axis with a despet lavariably—as it would be railed as continued, that assence on later, some system of movembe axis with a despet in travelable.

Hayout's park, Dec. 9.

Manutan's Base was Instantive moves.—A correspondent of the Reidmay Chromicis furnishes the following description of Mr. Martille is enpresentate in the construction of railways and carriagus :—Mr. Mertille
proposes to effect various improvements both on the rails and in the carringes. The rail is to be af timber, covered with a flet from plate, on
which undersond wheels will too, and its curves; the exterior edge of the
plate is elevated assessment above the other, to compensate for the curtilegal force which is exerted upon the carriagus at high relocation. By disrandomly the flamps of the best in the carriagus at high relocation. By disrandomly the flamps, it is evident that there is no means left for certaining
the carriage which are depended benchmarkly; and moves in a grown, which is
formed by two control rails, which are laid parallel in the ordinary cons.
The is admirably accommissable pressure which the relices will exact upon
the extracter side of the grown when passing states, a plate of from is fixed
apon it, which recisis that executive pressure. The wheel which is intended to be used considerate of a cash-from extra plate of two in series
the extracter side of the grown when passing states, a plate of from is fixed
apon it, which recisis that executive pressure. The wheel which is intended to be used considerated of a cash-from ears, in which are insented valids
are monthly decreased by two flat harps, one on either side, which
are attached to the wood and each other by means of true place of exists.
The admired exists of the periphery of the wheel is increased by numerous
transverse accutation glac. There is great marsing in the system of springs
which Mr. Melville proposes; in a consists of heliow spheres, containing
compensated sir, and compense; it to side along impressive applications of applicaformity the wheel, and making it to side along impressive applications of applicaformity the wheel, and making it to side along impressive applications of pr

shall have your readers to force their cere against from the presenting action.

They are floor Marchinery.—Considerable interest having been retended to the recently been-read distance depth of the machinery with desirence depths. Obselvator, the failureing previousles of her machinery with desirence depths. Obselvator, the failure may previousles of her machinery with desirence prevery were made by Money. Miller, Revenhill, and Ca., or a new plan, for which they have secured a potent; the cylinders are 1% in. in discount, and 5 ft. 2 in. strains, forwarded with Howard's patient condensator. One of the providentine of the new necessary prevent in the phoning of the sic-promps in an inclined provides hetween the cylinders, in the control line of the second, in a force and all dissection—an advangement of the phoning of the six of the second, in a force and all dissection—an advangement of the control line of the six of the six of the six of the second of the six of the second of the six of the six of the same of the six of the si

SUPPLY OF PURE WATER TO THE METROPOLIS AND ITS SUBURBS-PROPOSED NEW COMPANT-No. V.

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SUPPLY OF PURE WATER TO THE METROPOLIS AND ITS

The various multiched, for the profite-time of water by replace and minimum, and the profite in the strain of the method of the profite in the strain of the method of the profite in the strain of the method of the strain of the method of the strain o

Such is Do. Pacia's, Mr. Mille's, and Dr. Ker to the filtration system, and such to see prep-tion of systems of supercon members of the